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ABSTRACT

A study was conducted to investigate the impact of role models on students' perceived competence, stress, and satisfaction with graduate school. Specific emphasis was given to the effects of gender on the evaluation process. Twenty-one male and female graduate students in communications were asked to designate the existence of a role model relationship and the gender and professional rank of the reported role model. Students were also asked to rate their perceived levels of competence, stress, and satisfaction with graduate school. The first analysis was concerned with describing the effects of gender on students' choice of role models. Of the 21 subjects, the six males who reported having role models indicated that those role models were male. Of the four females who reported having role models, three designated a male. These data indicated a tendency for subjects, regardless of gender, to prefer male role models. The majority of the faculty role models selected held the rank of assistant professor. Females who selected female role models reported higher levels of stress than did women with male role models. The males reported the lowest stress level. The results differed slightly with those of a previous study. (The instrument used to measure student competence, stress, and satisfaction with school is appended.) (HTH)

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STUDENT ROLE MODEL SELECTION: A REPLICATION

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STUDENT ROLE MODEL SELECTION: A Repication

Abstract

The purpose of this investigation was to examine the impact of role models on students' perceived competence, stress and satisfaction. Specific emphasis was given to the effects of gender on the evaluation process. Female and male graduate students were asked to designate the existence of a role model relationship and the gender and professional rank of the reported role model. Students were also asked to rate their perceived levels of competence, stress and satisfaction. Results indicated a preference, regardless of gender-of-student, for students to select male role models. A significant interaction between perceived level of stress and gender was found. Female students selecting same-sex role models reported the highest levels of stress. Implications of this finding are discussed.

STUDENT ROLE MODEL SELECTION: A Replication

A primary concern of any instructor should be the learning and achievement of his/her students. In recent years, instructional research has provided insight into the teacher's impact on student achievement. Research has established that certain personality traits (Andersen, 1979; Andersen & Andersen, 1982; Nussbaum & Scott, 1980) and style characteristics of a teacher (Norton, 1977; Nussbaum, 1981; Nussbaum & Scott, 1979, 1981) have been linked to achievement. In addition, a vast amount of research has been dedicated to the the development of instructional strategies, techniques, and tools. This research, however, has typically neglected the investigation of the selection and development of a role model relationship between student and teacher. "Though little is known about the impact of close relatioships between students and factlty, the belief is widespread that influence of faculty, as exemplars and as caring persons, can be substantial" (p. 250-251). This aspect of the instructional/learning process, theoretically, has potentially significant effects on students' motivation and achievement. Tagri (1971) posits that college faculty have as much influence in students' career decisions as do parents.

The present study is designed to explore the nature of role model relationships that exist between faculty members and students. The research focuses on the relation of characteristics associated with students' role model selections and students' self-evaluation of competence, stress, and satisfaction with specific emphasis on the effects of gender (i.e., sex-of-student and sex-of-role model) on the self-evaluation process.

THE ROLE MODEL RELATIONSHIP

Different types of role model relationships are formed throughout the student's college experience. Parents, who are lifelong models, may continue their influence during the student's college years. Perhaps it is a student's college employer who serves as a model, particularly if the student's job is aligned with the student's career goals (e.g., an internship or co-op program). The particular interests of this discussion centers on college faculty members as role models. College professors are the most readily available role models for students (Almquist & Angrist, 1971). Education scholars have referred to the many potential ways in which instructors influence and shape a college student's career. Feldman and Newcomb (1969) describe faculty as "representatives of various subject matters, "extrinsic sources of motivation," and "sources of influence" (p. 251).

According to Demper (1968), a role model is a technician, demonstrating skills to be learned and adopted by the student.

> The role model demonstrates for the individual how something is done in the technical sense ... The role model possesses skills and displays techniques which the actor lacks (or thinks he/she lacks) and from whom, by observation and comparison with his/her own performance, the actor can learn (p. 33).

Almquist and Angrist (1971) expand the role model profile by adding an "emulation" element. Role models not only provide technical demonstrations, but also enact their own lifestyle aspirations. These role models encourage a student to evaluate his/her own abilities and potential. Bell (1970) added the notion of "negative impact" to the role model concept. Thiss addition allows for

a role model who shapes a student's behavior in opposite patterns from their own due to undersirable qualities.[1] Accordingly a role model is

> ...any person to whom a subject feels himself to be similar (or dissimilar) or whom a subject wishes to be like (or unlike) or whose values the subject claims to have adopted (or refuses to adopt) (Bell, 1970, p. 281).

Developing the conceptualization of role model beyond the categories of technician and emulated-others, Bowen (1977) cites strong support for the "mentoring" function of a role model. As a mentor, the professor not only serves as a person to emulate, but as a counselor and guide through the educational experience. This leadership quality of the teacher-as-model implies greater contact, in terms of frequency and intimacy, and expands the role model concept from that of "someone worshipped from afar" to a that of a friendly consultant who highlights appropriate behaviors via personal example and concerned advise.

Teacher/Student Relationship

In a study of the presence of role models among young adults, Bell (1970) found that subjects who were able to name role models functioned more effectively on several dimensions of career success than those subjects citing no role models. Almquist and Angrist (1971) found that students' level of commitment to a field were profoundly influenced by role models who "display the skills, meet the demands, and enjoy the pleasures of pursuing the field" (p.

267).

In an insightful work on college student experience, Astin (1977) found that the amount, type, and quality of contact a student has with a professor (i.e., involvement) has a strong association to the student's degree of collegiate satisfaction. Students most satisfied with the college experience are those who have developed sound relationships with powerful/influential faculty members.

Several studies have focused specifically on the sex-related patterns in the modeling-mentoring quality of the teacher-student relationship. Gilbert, Gallessich, and Evans (1983) investigated the effect that same-sex versus other-sex role models had on students' self-evaluations of stress, competence and satisfaction with regard to their student and intended professional roles. Based on a sample of 157 graduate students (80 females/77 males) Gilbert et al. (1983) found that: 1) females identifying same-sex role models ranked higher on measures of self-esteem, instrumentality, work commitment, career aspirations, and satisfaction with student roles than those females identifying other-sex role models, 2) Males identifying same-sex role models demonstrate no significant differences on measures of work commitment, career aspiration, self-esteem, and masculinity when compared to females with same-sex role models, 3) female same-sex role model reported higher satisfaction with their student role than all other groups.

Erkut and Mokras (1984) found that male students overwhelmingly avoided female professors as role models, opting for powerful, high-status, male professor who would promote their goals both educationally and professionally. Female subjects selected female role models when they were available among faculty. In addition, Erkut and Mokras (1984) discovered that females who selected female professors as role models looked to these models as examples of

persons who could successfully interate professional and family lives. Males selected male role models for reasons associated with professional gain, not for personal of familial exemplification.

Douvan (1976) outlines three opitions for female role innovators as they approach the male-dominated carrer: 1) deemphasizing femininity, 2) deemphasizing professional goals, or 3) integrating professional and feminine goals. Of the women who choose the third alternative, Douvan states:

> The integrator has particular need of models ... she needs to see that the integration is possible. For her, the adult woman who has managed the balance to which she aspires may be of pivotal importance in determining the outcome of her training and development (1976, p. 15).

Female faculty members can serve as models, mentors, and emulated exemplars for female students. Academia, however, is still primarily a male-dominated profession. Results from gender-related studies on role model selection are limited in that there are fewer women represented among college faculties. The proportional representation of female faculty members may be a potential problem in this type of research. The proportion of students selecting male and female models must be examined with respect to the relative frequency of sex represented in the faculty pool.

In sum, evidence supports the notion that many students do select faculty role models, of either the "emulated exemplar" type, the "mentor/counselor" type, or a combination of both. Research suggests the many potential ways in which faculty can influence students. However, as Feldman and Newcomb (1969) point out, "the extent to which these potentialities are actualities has not yet

been fully assessed empirically. Moreover, more information is needed about the degree to which faculty are involved ..." (p. 252).

Since research supports the existence of role model relationships in the college setting, the current investigation will focus on the selection process, the effects of gender on selection, and, finally, student-characteristics that may influence selection of faculty role models.

THE STUDY

The present research is a replication, in part, of a study conducted by Gilbert, Gallessich, and Evans (1983).[2] Items used to measure stress, competence, and satisfaction were replicated, as was the procedure for identification of role models. The same four research questions were employed:

Research Questions

Q_1: **Model choice.** Will males and females differ proportionally in their choice of male and female role models?

Q_2: **Model choice and achievement-related variables.** Will students with same-sex role models report higher scores on the competence measure than those students with other-sex role models?

Q_3: **Model choice and satisfaction with the graduate department.** Will students with same-sex role models report higher satisfaction with the department and with their student role than with those students with other-sex role models?

Q_4: **Model choice and stress.** Will students with same-sex role models report

less stress in graduate school and less student role conflict than those students with other-sex role models?

It should be noted that the Gilbert et al. (1983) study and this replication employ graduate student subjects, as opposed to undergraduates. The rationale for this choice is that graduate students are more likely to have defined role model relationships reflecting a exemplar and mentor quality due to the more stable level of career decision-making. Undergraduates formulate career decisions (and re-formulate them) throughout different phases of their college life; this lack of resolve may cause a degree of inconsistency in the identification of a role model, which is not paralleled at the graduate level.

METHODS AND PROCEDURES

Subjects. Twenty-four graduate teaching assistants (GTA's) from a Communication department at a large Western university were asked to participate in the study. Twenty-one students (88%) consented to take part in this research project; nine males (43%) and twelve females (57%). The mean age for males was 26:02 (two males did not report age). The mean age for females was 30.09. Five of the nine male subjects were pursuing Ph.D.'s (56%) and four were pursuing Master's degrees (44%). Eight women were Ph.D. candidates (67%) and four were Master's candidates (33%). (See Table 1 and 2).

Procedures. Each subject responded to a ten-item questionnaire (See Appendix A). The first three questions served to form a composite **stress** dimension, questions 4, 5, and 6 constituted a **competence** dimension, and items 7 through 9 formed a **satisfaction** dimension. These three dependent variables,

stress, competence, and satisfaction, have been previously determined to be central to a graduate student's effectiveness both personally and professionally (Hirschberg & Itkin, 1978; Halahan, 1979; Newman, 1974). Items were collapsed into three main dimension for analysis based on their compatibility as conceptual dimensions. The nine items were not treated in the analysis as unique variables.

In addition to the nine scales, students were asked to respond to a tenth item. Item ten of the questionnaire consisted of three parts: 1) designation of the existence of a role model (if any), 2) notation of the sex of that role model, and 3) identification of the professorial rank of the role model. Complete anonymity and confidentiality were guarantied. In this manner, subjects were reassured that candid responses could not be traced nor used for any purpose other than those intended for the present investigation.

Data analysis. A multivariate analysis of variance (MANOVA) was performed on these data. A series of one-way analyses of variance were performed post hoc, to test for differences in the three main groups, as determined by the independent variables, gender of subject and gender of the faculty role model. Group 1 included those male subjects who identified female role models; Group 2 included females who selected male role models, and Group 3 included females who selected male role models.[3] The oneway analyses of variance provided measures of stress, competence, and satisfaction for each of the three groups.

RESULTS

The first analysis was conernd with describing the effects of gender on students' choice of role models. Of the 21 subjects 13 (62%) reported having

role models. Six males, approximately 33% of the total sample, reported having a role model relationship. Seven females, approximately 58% of the total sample, reported having role models. All of the male GTA's reporting a role model relationship designated a male as their role model. Four females reported having a male role model. Three of the female, who reported a role model relationship, selected a male role model. These data evidence an obvious tendency for subjects, regardless of gender, to prefer a male role model (See Table 3).

Examining the impact of instructors' professional rank on subjects' role model preferences, the majority of the faculty role models selected were assistant professors (54%). Full professors accounted for 31% of the reported role models, and associate professors accounted for the remaining 15% of subjects' selections. Males overwhelmingly preferred assistant professors (67%) rating associate professors and full professors equally (17% each). In contrast, assistant and full professors accounted for approximately 86% of all female-reported role models; each of which accounted for 43% of the selected role models. Only 14% of the role models selectd by Females were associate professors.

Insert Table 3 about here

A multivariate analysis of variance produced one significant result. The univariate F-test included in this MANOVA revealed significance for the **stress** dimension ($F = 5.21$; $p < .05$). F-tests for the Competence dimension ($F = .71$, $p = > .05$) and the satisfaction dimension ($F = .51$, $p = > .05$) failed to recieve

statistical confirmation.

A oneway ANOVA testing the differences between the three groups on the **stress** dimension produced significant results ($F = 5.21$; $p < .05$). **Group 2** (female same-sex role models) had the highest mean score for the stress dimension ($X = 11.8$) with scores ranging between 3 and 18. **Group 3** (females other-sex role models) achieve the second highest mean score ($X = 9.71$), with **Group 1** (males same-sex role models) evidencing the lowest mean score for stress ($X = 7.0$) (See Table 4).

Insert Table 4 about here

DISCUSSION

Sixty-two percent of the total sample selected role models from the faculty at the testing university: 58% of the females selected role models and 67% of the males selected role models. These scores compare to 79% and 81%, respectively, as reported in the Gilbert et al. (1983) study. Gilbert et al. also reported a 35% rate of females selecting female role models and a 65% rate of females selecting male role models from a faculty composed of only 10% females. Corresponding figures for the current study are 43% and 57% respectively, for a faculty of 17% female. It is important to note that the percentage of women selecting female faculty role models is high when considering the underrepresentation of women on these faculties. This proportionally high rate of "females as role models" may be attributed to either

the outstanding quality of these women faculty members or the increasing importance of same-sex role models for college GTA's.

It is also interesting to note that 100% of the males in the current study selected male role models, in comparison to 85% male selecting male role models reported by Gilbert et al. (1983). This finding suggests that males and females do differ in their selection of role models. Males may opt to select male role models because of the lack of ambiguity with regard to social expectations and the security of affiliating themselves with the "ruling class." Whereas, females students may select same sex models in an attempt to identify with females who reify the possibility of achievement in a male-dominated field.

As reported earlier, Groups 1, 2, and 3 differ significantly only on the **stress dimension.** An inspection of the mean scores revealed that females selecting female role models, reported the highest levels of stress. This is inconsistent with the findings reported by Gilbert et al. (1983). In Gilbert et al.'s study females selecting same-sex models rated themselves significantly higher on the competence dimension, and no significant differences were found between groups on the stress and satisfaction measures.

The findings of the current study on the **stress** dimension scores for females selecting same-sex models warrant further discussion. Female GTA's selecting female role models evaluated themselves as having more stress and conflict than either of the other two subject groups. Past research indicates that female faculty members represent achievement, success, and alternative lifestyles to their students (Douvan, 1976). According to Douvan, female faculty members are role innovators, who themselves have successfully competed in a male-dominated profession -- "mavericks" in many ways. These high achieving women tend to take more personal responsibility for their successes and failures

(Safilious-Rothschild, 1979). Therefore, females students attempts to echo the innovative behaviors of their same-sex role models may have a higher need for personalized achievement. This heightened achievement level may account for the higher levels of stress experienced by these female students.

Women with male faculty role models reported lower levels of stress than those female subjects who selected female role models. One interpretation of this finding is that females selecting other-sex models hold more traditional role expectations for men and women, and feel more secure looking to the advice and example of a male rather than a female (Brown, 1983). These females students are dependent on external/social forces for their reinforcement. According to Safilious-Rothschild (1979) and Thurber (1972), women who depend on external reinforcement take less responsibility for their achievements. This external attribution and lack of responsibility may free female students from the consequences of their behaviors. This reduction in accountability could result in lower levels of perceived stress.

The males in this study reported the lowest levels of stress. These male students may not perceive a high degree of stress or role conflict as a result of being males guided by males in a male-dominated surrounding. Possibly these males who associated themselves with male faculty take comfort in being "in group" members. In addition, numerous studies have found that male students experience lower levels of anxiety than do female students (Fyans, 1979; Harleston, 1962; Sinick, 1956).

In conclusion, future research in the area of educational role models should employ larger sample sizes, using faculties representing a more equitable distribution of males and females. Also, more rigorous measures of the dependent variable should be employed. The inclusion of a self-esteem and

personality measure, such as the one employed by Gilbert et al. (1983), may broaden the profile of the subjects.

A number of limitations are associated with the present study. First, the findings reported were derived from a small sample. Due to the limited sample size the results of this investigation should be accepted with a degree of conservatism and caution. Furthermore, there is the possibility that the GTAs were not fully candid in their responses. Uncertainty with regard to anonymity may have caused the subjects to report role models based on the level of "departmental power" believed to be possessed by the choosen professor rather than reporting their "true" role model.

Of special interest, when considering the limitation of the present study, is the fact that 33% of the male and 42% of the female respondents did not report faculty role models at this university? Considering that the majority of our sample are Ph.D. candidates, it is possible that subjects had selected role models from other faculties encountered earlier in their educational career.

Much conjecture can be made concerning role models. But conjecture, although stimulating, is not sufficient. The ideas emphasized in this paper are provocative and suggest directions and methods for future investigations. Specific attention should be given to the impact that role model relationships (same/other-gender) have on students' educational success.

ENDNOTES

[1] The positive sense of role modeling is to be considered in this discussion; however, the negative aspect of this concept warrants future investigation.

[2] Gilbert et al. (1982) also measured students' self-esteem levels and psychological masculinity and femininity. These measures were not replicated in the current study.

[3] Due to the fact that no male GTA selected a female role model, there were only three groups.

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TABLE 1

The proportion of M.A. and Ph.D. candidates by sex of subject

	Ph.D.	M.A.	Total
Male	5 (56%)	4 (44%)	9 (43%)
Female	8 (67%)	4 (33%)	12 (57%)
Total	**13 (62%)**	**8 (38%)**	**21 (100%)**

TABLE 2

Mean of age of subjects by degree and sex

	Ph.D.	M.A.	Total
Male	27:09	24:00	25:08
Female	32:00	26:09	29:05
Total	**29:06**	**25:05**	**27:06**

TABLE 3

Subjects' Selection of Professorial Role Models at each Status level by Sex of Subject

	Assistant	Associate	Full	Total
MALE STUDENTS				
Male Faculty	4 / 66%	1 / 17%	1 / 17%	6 /100%
Female Faculty	0 / 00%	0 / 00%	0 / 00%	0 / 00%
Total	**4 / 66%**	**1 / 17%**	**1 / 17%**	**6 / 46%**
FEMALE STUDENTS				
Male Faculty	2 / 29%	0 / 00%	2 29%	4 / 57%
Female Faculty	1 / 14%	1 / 14%	1 / 14%	3 / 43%
Total	**3 / 43%**	**1 / 11%**	**3 / 43%**	**7 / 54%**
TOTAL	**7 / 54%**	**2 / 15%**	**4 / 31%**	**13 / 100%**

Table 4

Mean Scores for Groups by Stress, Competency, and Satisfaction

	Males with male Role Models Group 1	Females with Female Role Models Group 2	Females with Male Role Models Group 3
Stress	7.00	11.80	9.71
Competency	15.50	14.60	15.90
Satisfaction	12.83	13.00	13.29

APPENDIX A

Questions Related to the Stress, Competence, and Satisfaction Dimensions

Stress Dimension

1. How much overall stress do you feel this semester?

1	2	3	4	5	6

2. How much stress do you experience between your student role and oher roles in your life?

1	2	3	4	5	6

3. How much stress do you expect to experience between your projected professional role andy other roles in your life?

1	2	3	4	5	6

Competence Dimension

4. How much competence do you feel you possess with regard to your work as a GTA?

1	2	3	4	5	6

5. How much commitment do you feel to your work as a GTA?

1	2	3	4	5	6

6. How much aspiration do you have with regard to caree recognition and achievment?

1	2	3	4	5	6

Satisfaction Dimension

7. How assimilated into the department do you feel?

1	2	3	4	5	6

8. How much of the time do you feel satisfied with your role as a GTA?

1	2	3	4	5	6

9. To what extent are you satisfied with the department as a whole?

1	2	3	4	5	6